

REMARKS

Claims 1-5 are currently pending in the application. By this amendment, claim 1 is amended. The specification was also revised. The above amendments do not add new matter to the application and are fully supported by the specification. For example, claim 1 was amended for grammar and antecedent basis issues. The specification was amended to correct numbering of character reference numerals. Reconsideration and withdrawal of all pending rejections in view of the above amendment and following remarks is respectfully requested.

Acknowledgement of Allowable Subject Matter

Applicants appreciate the indication that claim 2 contains allowable subject matter. However, Applicants submit that all of the claims are allowable over the prior art of record for the reasons below.

Acknowledgement Applied Reference

Applicants appreciate the Examiner's consideration of the document cited in the Information Disclosure Statement filed on September 30, 2003 by the return of the initialed copy of the PTO-1449 Form. However, Applicants respectfully request the Examiner to consider the TAKAHASHI (USPN 4,604,776) reference, which was applied against the claims. Applicants note that this reference was not cited in the PTO-892 form. Accordingly, Applicants request that the Examiner cite the TAKAHASHI reference in a supplemental PTO-892 Form.

Applicants also request consideration of the foreign patent office communication

and accompanying reference attached hereto and listed on the PTO 1449 form.

Acknowledgement of Foreign Priority and Receipt of Certified Documents

Applicants note with appreciation the Examiner's acknowledgment of Applicant's claim for foreign priority under 35 U.S.C. § 119 and the receipt of the certified copy of the priority document of Japanese Application No. J.P. 2002-196756.

Amendment to Specification

The Specification was amended to correct character reference numbers.

35 U.S.C. § 103 Rejection

Claims 1 and 3-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over DAVIS (U.S. Patent No. 6,377,445) in combination with TAKAHASHI (U.S. Patent No. 4,604,776). This rejection is respectfully traversed.

The invention is related to a support structure of a control board. The support structure includes a control board including a plurality of attaching holes disposed at respective corners of an imaginary polygon, as shown, for example, in the embodiment of Figure 2. A support member is used for supporting the control board. A plurality of support bosses are disposed on the support member in correspondence with the respective attaching holes. The support bosses each having a support portion in contact with one face of the control board, and an engaging portion inserted into the attaching hole and engaged with another face of the control board, as shown, for example, in Figure 4. As shown in the embodiment of Figure 4, for example, each of the engaging portions is

formed with a split groove in a shape of a straight line opened at a front end. The respective support bosses are provided at the support member such that the split grooves of the support bosses disposed at two ends of the straight lines connecting corners of the imaginary polygon are not disposed on the same straight lines. See Figure 2, at P2 and P1, for example.

Independent Claim 1

The Examiner asserts that DAVIS shows all of the features of the claimed invention except for the support member being made of synthetic resin. Applicants submit that the DAVIS as well as TAKAHASHI do not show many features of the claimed invention.

Independent claim 1 recites, *inter alia*:

“...wherein each of the engaging portions is formed with a split groove in a shape of a straight line opened at a front end thereof and the respective support bosses are provided at the support member by avoiding the split grooves of the support bosses being disposed at two ends of straight lines connecting corners of the imaginary polygon from being disposed on the same straight lines....”

DAVIS discloses a mounting panel assembly 104 (Fig. 5) for mounting a computer motherboard 106 (Figs. 3 and 5) or a control board 118 (Fig. 5). The mounting panel assembly 104 includes slots 108 for receiving standoffs 110 mounted to the motherboard 106. (See Figs. 3 and 5 and Col. 2, lines 52-65.) The receiving standoffs 110 (Figs. 4 and 5) have a first end portion 136, which includes a hole for receiving a separate fastener 154. In particular, the receiving standoffs 110 are attached to the motherboard 106 by a separate or independent fastener 154 described as a screw, bolt or the like. See Figs. 4 and 5 and Col. 4, lines 43-45.

Contrary to the Examiner's assertion, DAVIS fails to disclose the recited features noted above of the claimed invention. For example, DAVIS fails to disclose or suggest engaging portions formed with a split groove in a shape of a straight line opened at a front end thereof, as at least recited in independent claim 1. However, DAVIS merely shows a screw or bolt or the like with no teaching of the engaging portion formed with the split groove.

Furthermore, DAVIS does not show or even remotely suggest that the split grooves are arranged such that they are not in the straight lines connecting corners of an imaginary polygon, as at least recited in independent claim 1. Instead, DAVIS shows, in Figure 2, phillips head screws positioned in the corners of the motherboard. The flat head screw, on the other hand, is positioned in the middle of the motherboard. Thus, even assuming, arguendo, that the flat head screw was a support boss having an engaging portion formed with a split groove (which Applicants submit it would not), the screw of DAVIS is not positioned in the corners of the control board, which is recited in the present claims. In fact, none of the specific citations of DAVIS referenced by the Examiner discloses or even suggests a positioning of the split groove in relation to an imaginary polygon, as at least recited in independent claim 1.

TAKAHASHI does not compensate for the deficiencies of DAVIS. TAKAHASHI shows a spacer for mounting circuit boards. But TAKAHASHI fails to teach or suggest the above-noted features of the claimed invention. Therefore, TAKAHASHI does not make up for the deficiencies of DAVIS.

Accordingly, the art of record fails to provide any teaching or suggestion of the features argued above, as at least recited in independent claim 1. Applicant submits that

the asserted rejection is improper. Therefore, withdrawal of the rejection of claim 1 is respectfully requested.

Dependent Claims

With respect to claim 3, the Examiner asserts DAVIS shows in Fig. 2 an imaginary polygon as a quadrangle with four of support bosses provided on the support member in attitudes of avoiding the split grooves of pairs of the support bosses disposed at two ends of straight lines connecting the respective corners of the imaginary quadrangle from being disposed on the same straight lines. Applicants note that the Examiner refers to support bosses which are phillips head screws. These screws are not the flat head screw, nor are they engaging portions which have split grooves.

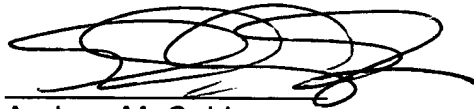
With respect to claims 4 and 5, the Examiner asserts that DAVIS shows either an imaginary polygon as a triangle or pentagon, providing the similar reasoning as to claim 3. However, as argued above, the Examiner's assertions are flawed, since DAVIS shows phillip head screws, which are not recited in the claimed invention.

Therefore, withdrawal of the rejection of dependent claims 3-5 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the rejections have been overcome, and that the claims are patentably distinct from the prior art of record and in condition for allowance. The Examiner is respectfully requested to pass the above application to issue, and to contact the undersigned at the telephone number listed below, if needed.

Respectfully submitted,
Motoyasu Nakamura

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', written over a horizontal line.

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